RAVINDER NAGI

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PROFESSIONAL EXPERIENCE

UNIVERSITY OF HOUSTON DOWNTOWN, HOUSTON, TX AUGUST 2023 TO PRESENT

PEER MENTOR

- Conceptualize and deliver comprehensive lesson plans and instructional materials that significantly enhance incoming freshmen's engagement with university resources, culminating in an 85% boost YoY in resource utilization.
- Serve as a university representative while answering inquiries, resolving concerns, and mediating complaints; create orientation videos for incoming students.
- Interpret internal metrics by using learning management software to identify gaps and opportunities for continuous improvement.
- Produced a custom Python application to track attendance, distribute weekly newsletters, and relay event updates.
- Commended for elevating satisfaction and retention rates by 20% within the first semester.

METECS, HOUSTON, TX, JANUARY 2023 TO MAY 2023

SOFTWARE ENGINEERING INTERN

- Assisted in the development of software for NASA tasks, including AES RFID Enabled Automated Logistics Management (REALM), with a focus on RFID technologies for automated localization and inventory management.
- Leveraged Linux expertise to create utilities and write software in Python; authored thorough documentation to support future maintenance while ensuring adherence to best practices for design style and integration with GitLab/GitHub.
- Attended Scrum sessions centering on monitoring milestone achievement and planning next steps.
- Bridged communications with the ISS REALM leadership team to present progress updates and recommendations during daily tag-ups; discussed overall goal achievement and collaboratively resolved arising issues/challenges as well as designed tools for side projects with a quick turnaround time.
- Wrote a custom developed module in Python that enabled the processing of thousands of unique RFID radio tag reads and subsequent logging to CSV files, for use in the International Space Station and Lunar Gateway.

NASA JOHNSON SPACE CENTER, HOUSTON, TX, AUGUST 2022 TO DECEMBER 2022

OSTEM AVIONICS and WIRELESS COMMUNICATIONS INTERN

- Introduced a Wi-Fi 6 and Wi-Fi 6 EasyMesh testing regime for applications in space and lunar environments, including Orion, Gateway, and future Artemis missions.
- Contributed insights to inform the diagnosis and performance optimization of Single Board Computers and Software Defined Radios while participating in innovative 5G/LTE 3GPP deployment projects tailored for lunar environments.
- Employed RF spectrum analyzers, Bash testing scripts, and benchmarking tools (e.g., iPerf) to quantify Wi-Fi 6 performance, uncover errors/inefficiencies, and conceptualize corrective actions.
- Drafted and updated meticulous documentation reflecting testing results, root causes of issues, and actions taken.

NAGI A/C PLUMBING CO. & NAGI ENTERPRISES, HOUSTON, TX, JUNE 2008 TO AUGUST 2022

TECHNICIAN/INSTALLER/MANAGER

- Oversaw the troubleshooting, diagnosis, and resolution of critical issues hindering optimal HVAC system performance while devising exceptional installation and repair solutions to sustain high customer satisfaction.
- Coordinated the installation of 75+ residential and commercial systems and response to 500+ service calls over 13 years.
- Established and nurtured strong client relationships that led to consistent revenue growth of 20% YoY.
- Supervised a team in performing repairs, maintenance, and occupancy rate optimization across a 13-property portfolio.
- Garnered and advanced skills in leadership and project implementation at various levels.

EDUCATION

BACHELOR OF SCIENCE IN COMPUTER SCIENCE,   **ANTICIPATED DECEMBER 2024**
University of Houston Downtown; Dean's List 2022/2023

PROFESSIONAL AFFILIATIONS

- Institute of Electrical and Electronics Engineers (IEEE Member)
- Computing Alliance of Hispanic-Serving Institutions (CAHSI Member)
- Association for Computing Machinery (ACM Member)
- American Institute of Aeronautics and Astronautics (AIAA-UH Chapter Member)

TECHNICAL SKILLS

Languages: English, Punjabi (Native), Urdu (fluent), Spanish (Basic), French (Basic)
Programming Languages: C++ | Python | Bash | R | Java/JavaScript | C | AutoCAD Design
Data Science & Machine Learning: Google Cloud Platform / AWS | NumPy | Pandas | Spark
Operating Systems: Windows | Linux | MacOS
Office Tools: Microsoft Office 365 (Word | PowerPoint | Excel | Outlook | Teams); iWork | Google Docs suite
Technical: RF Characterization | Systems Engineering | GNU/Linux | Data Analysis |Matlab | LAN/WAN | LLM | ChatGPT
Tools: Visual Studio | Anaconda | Xcode | VMware | Wireshark | iPerf | R | Octave | GitLab | GitHub | Redmine | UART/JTAG | Spectrum Analyzers